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was used for the analyses. **RESULTS:** In the base-case analysis, the standard EAI showed an incremental cost of $63 and an incremental effectiveness of negative 33%, per allergic episode. Overall, the ICER showed a cost saving of approximately $190 for the new EAI over the standard EAI, per allergic episode. The sensitivity analyses indicated a continuous dominance of the new EAI over plausible range of drug costs and injection success rate. These results were reversed when the success rate with standard EAI was assumed to be over 50% (base-case value of 12.5%). **CONCLUSIONS:** Based on the available data and our model assumptions, treatment of emergency food-allergy reaction with the new EAI was found to be more cost-effective compared to standard EAI. This can be attributed to an improvement in the delivery system resulting in correct injection use.

PRS45

A MARKOV COST-EFFECTIVENESS MODEL COMPARING FLUTICASONE PROPIONATE/SALMETEROL COMBINATION (SFC) AND MOMETASONE FUROATE/FORMOTEROL FUMARATE DEHYDRATE (MF) IN THE MANAGEMENT OF ASTHMA

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OBJECTIVES: Successful asthma management reduces the morbidity and mortality associated with the disease as well as the costs associated with treating complications. Several treatment options exist for asthma management, many that include a steroid in combination with a long-acting beta agonist (LABA), which are referred to as "controller medications." The purpose of this project was to estimate the costs and effectiveness and to determine the cost-effectiveness of two combination controller medications: fluticasone propionate/salmeterol combination (SFC) and mometasone furoate/formoterol fumarate dehydrate (MF). **METHODS:** A Markov disease state-transition model was constructed to estimate the costs and effectiveness of SFC and MF. The analysis was conducted from a U.S. health care system's perspective. Cost data for SFC were obtained from a published study evaluating the costs of managing asthma exacerbations in the UK in primary and secondary care and cost data for MF were derived by averaging out its price from different pharmacy chains available online. All costs were converted to 2013 US dollars. Effectiveness data and data on transition probabilities were derived from a published clinical trial. The model was run over a 12-week period using TreeAge Pro 2013. **RESULTS:** The cost associated with SFC treatment was estimated to be $1244 with 3 asthma controlled weeks and the cost associated with MF was $2884 with 1 asthma controlled week. The results showed that treatment with MF was dominated by SFC. **CONCLUSIONS:** This preliminary study shows that asthma management with SFC offers more treatment advantage and costs less compared to MF, therefore is more cost-effective than MF in asthma management.

PRS46

RESOURCES FOR IMPLEMENTING TRANSITION2QUIT, A SMOKING CESSATION INTERVENTION FOR HOSPITALIZED SMOKERS

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OBJECTIVES: Web-based interventions are promising smoking cessation tools. We are testing the effectiveness of Transition2Quit, a tailored web-based and e-message program for hospitalized smokers, versus usual care (minimal advice through non-tailored printed materials). We present data on resources to implement Transition2Quit. **METHODS:** Interventionists approached smokers during hospitalizations to register and orient them to the website (onsite registration). Staff made ≥ 5 attempts at a follow-up contact 7-14 days post-discharge. Through the website, we tracked follow-up calls and web activity. Interventionists recorded start and finish times of their activities. **RESULTS:** Of 737 smokers, 54.4% were male, 27.4% had cancer, 29.2% heart disease/stroke, 13.3% lung disease, 15.6 surgery or wound healing, and the rest other conditions. Mean age was 41.6 years. Onsite registration lasted 8-41 minutes (mean 17.6, median 16, SD 8.23), usual care 0-6 minutes (mean 2, SD 1). Interventionists attempted 2.9 calls per person (SD 1.9, max 9). 129 participants could not be reached due to disconnected phones, death, or ≥ 5 call attempts. For 43.4% ≥1 call was placed on weekends, for 69% in the evening. Follow-up calls lasted an average of 2.4 minutes (median 3, SD 0.9). 700 participants accessed the website 15.4 times (SD 17.1), on 1.98 days (SD 3.39), and accessed 5.39 pages (SD 4.06). Women were more likely to access the website than men (16.9 vs 14.2, p 0.04). Participants with heart disease accessed 18.4 times (SD 23.6), with cancer 15.4 (SD 13.8), with surgery or wound healing 15.2 (SD 13.0), with lung disease 12.9 (SD 10.7), with other condition 12.2 (SD 14.5) (p=0.018). **CONCLUSIONS:** Transition2Quit required minimal staff resources: to better inform dissemination, further understanding on how requirements vary depending on populations' characteristics (e.g., age, health condition) is needed. The website content may need to be better tailored to men and lung disease patients.

RESPIRATORY-RELATED DISORDERS – Patient-Reported Outcomes & Patient Preference Studies

PRS47

LONG-TERM CONTROLLER MEDICATION ADHERENCE AND USE OF SHORT-ACTING Β2-AGONISTS (SABA) AND ORAL CORTICOSTEROIDS (OCS) AMONG TEXAS MEDICAID PATIENTS WITH PERSISTENT ASTHMA

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OBJECTIVES: To determine if there is a relationship between asthma long-term controller (LTC) adherence and short-acting β_2-agonist (SABA)/oral corticosteroid (OCS) use. **METHODS:** Texas Medicaid prescription claims from 7/1/2008-8/31/2010 for continuously enrolled patients aged 5-63 years diagnosed with asthma (ICD-9 493.xx) and who had persistent asthma were included in this retrospective database study. Patients were followed for one year after the first (index) asthma controller prescription. The primary outcomes were SABA use (dichotomous: <6 vs. ≥6) and OCS use (continuous). The primary independent variable was adherence [Proportion of Days Covered (PDC)] to asthma LTCs. Covariates included demographics and medication utilization. Multivariate logistic and linear regression analyses were employed. **RESULTS:** The study sample (n=32,172) was 15.0±14.5 years old and controller therapy adherence was 32.2%±19.7%. The mean number of SABA claims was 3.7±3.1; most had 1-5 claims (73.2%), whereas 19.4% had ≥6 claims and 7.4% had none. The mean number of OCS claims was 1.0±1.4. Patients with ≥6 SABA claims had 0.7 more OCS claims compared to patients with <6 claims for SABA (p<0.0001). LTC-adherent (PDC≥50%) patients were 96.7% (OR=1.967;95%CI=1.826-2.120) more likely to have ≥6 SABA claims when compared to nonadherent (PDC<50%) patients (p<0.0001). LTC-adherent patients had 0.11 fewer OCS claims compared to non-adherent patients (p<0.0001). The odds of having ≥6 SABA claims were higher for concurrent dual therapy users, older age, males, African-Americans, and higher number of non-study medications (p<0.0001). Dual therapy users, younger age, Hispanic ethnicity, and higher number of non-study medications were associated with an increase in OCS use (p<0.005). **CONCLUSIONS:** Although there was a positive relationship between LTC adherence and SABA use, increased SABA use served as a predictor of increased OCS use, which indicates poor asthma control. Health care providers should be aware of SABA use among patients who are both adherent and nonadherent to asthma controller medications.

PRS48

IMPACT OF MEDICATION ADHERENCE AND PRESENCE OF COMORBID DEPRESSIVE DISORDER ON HEALTH CARE COSTS AMONG TEXAS MEDICAID PATIENTS WITH ASTHMA

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OBJECTIVES: To determine if there is a significant difference in asthma-related health care costs (HCC) and adherence to asthma controllers between patients with asthma and comorbid depressive disorder (A+D) vs. patients with asthma alone (A). **METHODS:** Texas Medicaid medical and prescription claims from 1/1/07-10/31/11 were extracted for adults (18-63 years) who had ≥2 asthma controllers in the A group, and additionally ≥2 antidepressants in the A+D group. The index date was the first date of asthma controller use with no previous use in the 6-month pre-index period. Patients were followed for 12 months. HCC (2011 dollars) included asthma-related prescriptions, inpatient, and outpatient costs. Proportion of days covered (PDC) was used to assess adherence, and covariates included asthma-related pre-index HCC, inpatient visit (Yes/No), numbers of outpatient visits and prescriptions, asthma controller class, severity and demographic characteristics. Descriptive statistics, Wilcoxon test and generalized linear model (gamma distribution and log link) were used. **RESULTS:** Median prescription costs (n=3626) were significantly (p<0.05) higher, while inpatient+outpatient median costs were lower for the A+D vs. A groups ($873.47 vs. $787.28; $47.68 vs. $73.89, respectively). The median (Mean±SD) asthma-related HCC for A group (n=3400) was not significantly different from the A+D group (n=226): [($1038.67, $1349.85±$1140.16) vs. ($1103.70, $1416.49±$1154.57), p=0.2198, respectively]. After controlling for covariates, regression results showed that compared to A group, the A+D group had significantly lower asthma-related HCC (p<0.0001). Asthma controller adherence was significantly and positively related to HCC (p<0.0001). In the A+D group, patients who were more adherent to antidepressants were more adherent to asthma controllers. **CONCLUSIONS:** Patients with A+D had significantly lower asthma-related HCC than those with A. In A+D, the higher costs of asthma-related prescriptions were offset by the lower costs of inpatient+outpatient claims. Patients with comorbid asthma and depression should adhere to both asthma controller and antidepressant medications.

PRS49

TREATMENT PERSISTENCE COMPARISON BETWEEN NEBULIZED FORMULATIONS OF ARFORMOTEROL AND FORMOTEROL IN THE TREATMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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OBJECTIVES: Treatment persistence can be a good indicator of drug efficacy and tolerability. Inhaled long-acting bronchodilators (e.g., long-acting β2-agonists [LABAs]) are the recommended maintenance treatment in moderate-to-severe chronic obstructive pulmonary disease (COPD). Arformoterol and formoterol are the only two available nebulized LABAs. There is limited real-world head-to-head comparative evidence for nebulized LABAs. The objective is to evaluate the difference in their treatment persistence. **METHODS:** This retrospective cohort study of the PharMetrics Plus claims database included eligible (continuous health plan enrollment 180-day pre- and 360-day post-index) patients >35 years; with ≥2 prescriptions of nebulized LABAs between 2008-2011 (first use as index); COPD diagnosis (ICD-9-CM 491.x, 492.x, 496.x) with ≥2 outpatient or ≥1 inpatient claims. Patients were excluded if they received nebulized LABA treatment or asthma diagnosis in the pre-index period. Persistence was defined as days from index to discontinuation (gap of ≥60 days) or end of study. Chi-square and t-test were used to compare two cohorts (alpha=0.05). Cox proportional hazards models were used to evaluate discontinuation risk 180- and 360-days post-index as a function of nebulized LABAs, age, physician specialty, comorbidities, initiation timing, and pre-index health care spending. **RESULTS:** A total of 1,041 eligible patients (arformoterol=672, formoterol=369) were included (mean age=69.4 years, 47.5% females). Compared to formoterol patients, arformoterol patients had longer treatment persistence (mean±SD: 210±133 vs. 192±137 days, p=0.0356), and lower predicted discontinuation risk (hazard ratio [HR]=0.78 [95% CI 0.65-0.93] in 180-day post-index and HR=0.87 [95% CI 0.75-1.00] in 360-day post-index models). Nebulized LABAs, non-pulmonologist prescribing, pre-index depression, and lower pre-index health care spending were associated with higher discontinuation risk in both 180- and 360-day Cox models. Younger age (35-54 vs. 65+ years) and pre-index diabetes additionally predicted higher discontinuation risk in 360-day Cox model. **CONCLUSIONS:** COPD patients on arformoterol had a higher treatment persistence compared to formoterol patients in this retrospective claims analysis.